



#10

SEQUENCE LISTING

1

amdt B

RECEIVED

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TECH CENTER 1600/2900

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Liu, Feng
Fu, Yan

<120> NUCLEIC ACID MOLECULES ENCODING MULTIPLE
START CODONS AND HISTIDINE TAGS

<130> 08411-027001

b
<140> US 09/897,776
<141> 2001-06-29

<150> US 09/732,990
<151> 2000-12-08

<150> US 60/169,725
<151> 1999-12-08

<160> 37

<170> FastSEQ for Windows Version 4.0

<210> 1
<211> 93
<212> DNA
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<220>
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<221> CDS
<222> (1)...(84)

<221> CDS
<222> (88)...(93)

<400> 1
aag ctt cac cac cat cat cac gca tca cca cca cca cca cgc atc
Lys Leu His His His His His Ala Ser Pro Pro Pro Pro Arg Ile
1 5 10 15 48

atc atc acc atc acc tcg agc gtc aca cta gct gag taa gca tgc
Ile Ile Thr Ile Thr Ser Ser Val Thr Leu Ala Glu Ala Cys
20 25 30 93

<210> 2
<211> 66
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetically generated oligonucleotide

<400> 2

gtacccacca ccatcatcat cacgcacac caccaccacc acgcacatc atcaccatca	60
cctcgaa	66
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ctgcagcggc cgcg	14
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ctaggcgccg gcgacgtctc ga	22
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ctagctgcag atatca	16
<210> 6	
<211> 16	
<212> DNA	
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<223> linker	
<400> 6	
agcttgatat ctgcag	16
<210> 7	
<211> 25	
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ccatcgatcc gagatagggt tgagt	25

<210> 8	
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acgagctcag gcagagacga	
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<223> primer for PCR	
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acgagctcgc agagacgacg	
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<211> 26	
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<223> primer for PCR	
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cctcgagtca cacaggaaac agctaa	
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<211> 24	
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<400> 11	24
ggcttagcagc tgtttcctgt gtga	
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<400> 12	18
gtggagcatc tggtcgca	
<210> 13	

<211> 37		
<212> DNA		
<213> Artificial Sequence		
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<223> primer for PCR		
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gagatctgcc ataacatgtc atcatagctg tttcctg		37
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ctagccgaaa ttaatacgac tcactatagg gagac		35
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accacc		66
<210> 16		
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gacgtcgcat gcttactcag ctagtgtatg ggtgatgtatg atggcctatg gtgggtgg		60
tgtatgcg		67
<210> 17		
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<400> 17		
taatacgtact cactataggg agaccacaac ggtttccctc tagaaataat tttgtttaac		60
tttaagaagg agatatacat atggcatggc atggcca		97

<210> 18
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 <212> DNA
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<220>
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<400> 18
 atggcatggc atg 13

<210> 19
 <211> 35
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<220>
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<400> 19
 aattgtctcc ctatagtgag tcgtattaaat ttccgg 35

<210> 20
 <211> 28
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetically generated peptide

<400> 20
 Lys Leu His His His His His Ala Ser Pro Pro Pro Pro Arg Ile
 1 5 10 15
 Ile Ile Thr Ile Thr Ser Ser Val Thr Leu Ala Glu
 20 25

<210> 21
 <211> 93
 <212> DNA
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<220>
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 <222> (80)...(91)

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 Ser Phe Thr Thr Ile Ile Ile Thr His His His His His Ala Ser
 1 5 10 15

tca tca cca tca cct cga gcg tca cac tag ctg agt aag cat
 Ser Ser Pro Ser Pro Arg Ala Ser His Leu Ser Lys His 91

20

25

gc

93

<210> 22

<211> 25

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetically generated peptide

<400> 22

Ser Phe Thr Thr Ile Ile Ile Thr His His His His His Ala Ser

1

5

10

15

Ser Ser Pro Ser Pro Arg Ala Ser His

20

25

<210> 23

<211> 4

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetically generated peptide

<400> 23

Leu Ser Lys His

1

<210> 24

<211> 93

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetically generated oligonucleotide

<221> CDS

<222> (3)...(80)

<221> CDS

<222> (84)...(92)

<400> 24

aa gct tca cca cca tca tca tca cgc atc acc acc acc acc acg cat
Ala Ser Pro Pro Ser Ser Ser Arg Ile Thr Thr Thr Thr His
1 5 10 15

47

cat cat cac cat cac ctc gag cgt cac act agc tga gta agc atg
His His His His His Leu Glu Arg His Thr Ser Val Ser Met
20 25

92

<210> 25

<211> 26

c

93

<212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetically generated peptide

<400> 25
 Ala Ser Pro Pro Ser Ser Ser Arg Ile Thr Thr Thr Thr Thr His His
 1 5 10 15
 His His His Leu Glu Arg His Thr Ser
 20 25

<210> 26
 <211> 93
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetically generated oligonucleotide

<400> 26
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 tggtgatgct tggatgtat ggtggtaag ctt 93

<210> 27
 <211> 118
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetically generated oligonucleotide

<221> CDS
 <222> (1)...(99)

<221> CDS
 <222> (103)...(117)

<400> 27
 tat aca tat ggc atg gca tgg cca ctg cag gat cca cca cca tca tca 48
 Tyr Thr Tyr Gly Met Ala Trp Pro Leu Gln Asp Pro Pro Pro Ser Ser
 1 5 10 15

tca cgc atc acc acc acc acc ata ggc cat cat cat cac cat cac act 96
 Ser Arg Ile Thr Thr Thr Ile Gly His His His His His His Thr
 20 25 30

agc tga gta agc atg cga cgt c
 Ser Val Ser Met Arg Arg 118
 35

<210> 28
 <211> 33
 <212> PRT
 <213> Artificial Sequence

<220>

<223> Synthetically generated peptide

<400> 28

Tyr	Thr	Tyr	Gly	Met	Ala	Trp	Pro	Leu	Gln	Asp	Pro	Pro	Ser	Ser
1				5					10				15	
Ser	Arg	Ile	Thr	Thr	Thr	Thr	Ile	Gly	His	His	His	His	His	Thr
		20					25						30	

Ser

<210> 29

<211> 5

<212> PRT

<213> Artificial Sequence

<220>

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<400> 29

Val	Ser	Met	Arg	Arg
1		5		

<210> 30

<211> 118

<212> DNA

<213> Artificial Sequence

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<223> Synthetically generated oligonucleotide

<221> CDS

<222> (2)...(70)

<221> CDS

<222> (74)...(103)

<221> CDS

<222> (107)...(118)

<400> 30

t	ata	cat	atg	gca	tgg	cat	ggc	cac	tgc	agg	atc	cac	cac	cat	cat	cat
	Ile	His	Met	Ala	Trp	His	Gly	His	Cys	Arg	Ile	His	His	His	His	His
1			5						10				15			

49

cac	gca	tca	cca	cca	cca	cca	tag	gcc	atc	atc	atc	acc	atc	aca	cta
His	Ala	Ser	Pro	Pro	Pro	Pro		Ala	Ile	Ile	Ile	Thr	Ile	Thr	Leu
20							25					30			

97

gct	gag	taa	gca	tgc	gac	gtc
Ala	Glu		Ala	Cys	Asp	Val
					35	

118

<210>	31
<211>	23
<212>	PRT
<213>	Artificial Sequence

<220>

<223> Synthetically generated peptide

<400> 31

Ile	His	Met	Ala	Trp	His	Gly	His	Cys	Arg	Ile	His	His	His	His
1				5					10					15
His	Ala	Ser	Pro	Pro	Pro	Pro								
			20											

<210> 32

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetically generated peptide

<400> 32

Ala	Ile	Ile	Ile	Thr	Ile	Thr	Leu	Ala	Glu
1				5					10

<210> 33

<211> 4

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetically generated peptide

<400> 33

Ala Cys Asp Val

<210> 34

<211> 118

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetically generated oligonucleotide

<221> CDS

<222> (3)...(95)

<221> CDS

<222> (99)...(116)

<400> 34

ta	tac	ata	tgg	cat	ggc	atg	gcc	act	gca	gga	tcc	acc	acc	atc	atc
Tyr	Ile	Trp	His	Gly	Met	Ala	Thr	Ala	Gly	Ser	Thr	Thr	Ile	Ile	
1				5					10					15	

47

atc	acg	cat	cac	cac	cac	cat	agg	cca	tca	tca	cca	tca	cac	
Ile	Thr	His	His	His	His	His	Arg	Pro	Ser	Ser	Ser	Pro	Ser	His
20							25					30		

95

tag	ctg	agt	aag	cat	gcg	acg	tc								
Leu	Ser	Lys	His	Ala	Thr										

118

35

<210> 35
<211> 31
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetically generated peptide

<400> 35
Tyr Ile Trp His Gly Met Ala Thr Ala Gly Ser Thr Thr Ile Ile Ile
1 5 10 15
Thr His His His His Arg Pro Ser Ser Ser Pro Ser His
20 25 30

<210> 36
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetically generated peptide

<400> 36
Leu Ser Lys His Ala Thr
1 5

<210> 37
<211> 118
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetically generated oligonucleotide

<400> 37
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tgatgcgtga ttagtggatgtt ggtggatcct gcagtggcca tgccatgcca tatgtata 60
118
*B1
cont'd*